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Environmental sanitation conditions in the Beba fish auction place (TPI)

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Abstract

Beba Fish Auction Place (TPI) is one of the few TPI in North Galesong. TPI is a place where the fishermen selling their fish catch in the large or small scale (retail). Every day the transaction activity occurred in the area. But the sanitary conditions in Beba TPI very alarming, both the building and the surrounding environment. The problem is very bad sanitary systems affect the health of the environment. The research objective is to explore all matters relating to sanitation in areas beba TPI. Using the methodology of phenomenology. Deep field observations to determine the phenomena related to sanitation condition, sources, and effect to the environment. Results of the research was the discovery of the cause of poor sanitation systems and improvement efforts.

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Keywords: Environmental sanitation; the fish auction place (tpi)

1. Introduction

1.1. Background

Sanitation is very important things in a settlement, because have affect on people's health, both physical and mental health. TPI (fish auction place) is one container to stimulate and improve the business and the fishermen welfare. Sanitary conditions in the TPI will have an effect on the quality of fisheries production. It also affects the health of the environment. TPI beba is the biggest TPI in the North Galesong district. Every day, fish transaction trading took place crowded both in large and small / retail scale. But the sanitary conditions in the TPI Beba very worrying that impact on the quality of the surrounding environment. Environmental degradation seen in the amount of garbage

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that were spreading everywhere, sewage spilling into the street and smell less pleasant and wafted up to hundreds of meters of TPI Beba. From these condition, then the question arises, what is causing environmental degradation in TPI Beba and surrounding areas, as well as matters what needs to be done to eliminate the problem.

1.2. Purpose

Explore the TPI and the sanitary conditions and the impact on the neighborhood environment as well as the efforts that need to be done to eliminate it.

2. Literature Review and Method

2.1. Literature Review

Definition of Sanitation

Sanitation is an attempt to supervise some of the factors which affect the physical environment to humans, especially to things that have a damaging effect physical development, health and survival. Sanitation also helps maintain the biological environment mRusmali, 2004). General hygiene according to Johns (1991), is the basis of a process hygiene. Cleanliness is important because it can prevent the bacteria that arise from dirty conditions.

Environmental sanitation is the health status of an environment which includes housing, sewerage, and water supply (Notoadmojo, 2003). Good hygiene in the industry lies not only in the cleanliness of raw materials, equipment, space and labor, but also in the handling and disposal of waste. Although an industry produces high quality products but if the way around the waste disposal industry is not handled properly, it will be able to disrupt and damage the surrounding environment (Liswati, 2000). The TPI sanitary facilities is based on the decision of the Marine Affairs and Fisheries Indonesia Minister No. KEP. 01 / MEN / 2007 (DKP, 2007), sanitary facilities such as wash basins and toilets in sufficient quantities. Hand washing facilities should be equipped with hand washing materials and disposable dryer.

The Fish Auction Place (TPI)

Fish Auction Place (TPI) is one of the main functions in the fishery and also one of the factors that stimulate and improve the business and the welfare of fishermen (Wiyono, 2005). Where the fish auction is a function of the fish auction to auction the fish, where there was a meeting between the seller (the fishermen or vessel owners) with the buyer (merchant or fishing company agent). The location and the division of space in the building auction should be planned so that the product flow (flow of product) runs quickly (Lopez, 2006).

2.2. Methods

The method used was phenomenology. Phenomenology is one method in qualitative research. Focusing on one of discovery of the facts against a social phenomenon and trying to understand human behavior from the perspective of the participants (Strueber and Carpenter 1999: Poerwandari (2005).

This research, data collection was done by observing every thing related to sanitary conditions in TPI and its surroundings. Furthermore, these data will be compared with the theory and standards in accordance with the object of study to provide appropriate solutions to the problems.

3. Result and Discuss

3.1. Location

Beba TPI is located in the village Tamasaju, Galesong districts of North, South Sulawesi Province. Indonesia. The following image shows the location of Beba TPI.

Map of Indonesia

South Sulwesi, Tamasaju Distrik, and Beba TPI

Fig. 1. Location of Beba TPI. (source: google)

3.2. The Buildings Condition of Beba TPI

Fig. 2. Beba TPI Building

The condition of the buildings are open without walls. Measures about 8 x 12 m. There is no drainage cannel and water tanks for washing fish, other than that there is no garbage dump in the TPI area. The lower floor of the central part of TPI building, making dirty water always inundated in that area.

3.3. Kondisi Sanitasi di TPI dan Sekitarnya

Fig. 3. Sanitation System in The Environment Beba TPI

Based on the results of field observations of the environmental sanitation condition in TPI beba, as follows :

1. Drainage ditch is shallow, narrow, and sporadic
2. Drainage ditch is covered with by material (sand + cobblestones)
3. Drainage ditch interrupted by walkways, road construction superficial and buried by rocks large sizes, and filled with garbage.
4. Sewer spill into the street because there is no connectivity with other channels

3.4. Building Sanitation of Fish Auction Place

Building fish auction place very far from ideal conditions, based on the general guidelines used in planning the construction and operation of Sanitation Standard Operating Procedures (SSOP) in the fishing port or landing bases fish is as follows (Menai, 2007):

1). Location, construction and layout of TPI Beba

- The building is not in place is a garbage disposal area, densely populated residential or other areas that may lead to pollution;
- Free from junk heap irregular;
- Free from pile of scrap or waste;
- Free from hiding places or breeding of insects, rodents and other vermin;

- Sewer systems (drainage) in good condition;
- Flat floor surface, waterproof, chemical resistant, non-slip and easy to clean; and
- The meeting between the floor with curved walls and watertight.

Mahyuddin (2007) states that, according to the Minister of Marine Affairs and Fisheries No. KEP. 01 / MEN / 2007 dated January 5, 2007, on Requirements for Quality Assurance and Safety of Fishery in the production process, processing and distribution, that the requirements of the fish auction place (TPI) one of which is:

- Having a waterproof floor that is easily cleaned and sanitized, equipped with drainage and liquid waste disposal systems have hygienic;
- Equipped with sanitary facilities such as wash basins and toilets in sufficient quantities. Hand washing facilities should be equipped with hand washing materials and disposable dryer;

Some point above which is closely related to the discussion at all is not found in the TPI beba. TPI building does not have a good sanitation system in the building and outside the building. At the center of the lower floor of the building TPI led to the dirty water of the remains eaves stagnant water fish and if the flow will flow to the outside of the building and then only pervasive in the land area of TPI. Similarly, the landfills, there are no storage tanks so that the garbage bins around TPI stacked everywhere, on the street, at the beach, and in the channel drainse. According to the Directorate General of Sea Transportation Ministry in Siahaan (2012), that the infrastructure component of public service in the port of environmentally sound consists of bins are available in sufficient quantities at strategic places, ditch / drainage in pristine condition, the toilet is in pristine condition, kiosk / shops, restaurants and offices arranged neatly and in good condition and clean.

Setting sanitation and hygiene, especially in the fish auction place (TPI) need to be considered in the concept of environmentally sound management of fishing ports and guidelines Sanitation Standard Operating Procedures (SSOP) to minimize factors that can cause soiling as a result of activities in TPI (Lopez, 2012). In the concept of Eco Port that the port has a waste management facility (Prisetiahadi, 2009). According to the Directorate General of Sea Transportation in Siahaan (2012) that the port should have environmentally sound waste handling facilities. Good hygiene in the industry lies not only in the cleanliness of raw materials, equipment, space and labor, but also in the handling and disposal of waste. Although an industry produces high quality products but if the way around the waste disposal industry is not handled properly, it will be able to disrupt and damage the surrounding environment. So is the fishing port (Liswati, 2000).

It also needs to be considered related to TPI is the floor of the building where the auction should be tilted towards the drain about 2 °. This is intended to prevent water from spraying dirt remnants of fish after completion of auction activity can flow into the drain easily so that the cleanliness of the auction is always maintained (Lopez, 2006). But in TPI Beba, the slope of the floor is not well designed, so that dirty water does not flow out of the chamber, unless the volume has exceeded the height limit area of land outside the auction building, and then the dirty water is simply seep into the ground

3.5. Environmental Sanitation Around Beba TPI

The remains of damaged fish and fish piled dirt everywhere TPI area causing less savory aroma, the aroma wafted up to 100 meters over T PI Beba., This is caused by poor sanitation system includes the drainage system, the accumulation of garbage everywhere, the unavailability of clean water sources around TPI because water wells around the TPI sanitation> 0. The condition is supported by the lack of vegetation that can be a barrier to the surrounding environment.

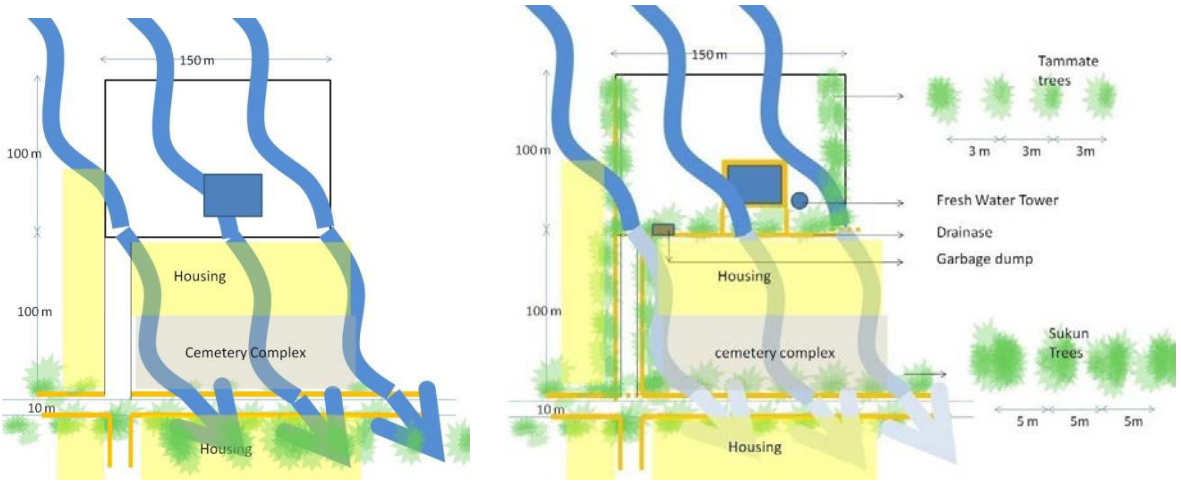

Fig. 4. The beba TPI and its environment and the development plan of vegetation in the TPI beba

Picture left. Beba TPI condition today. Areas in coastal demarcation line Gesang, much less the type of vegetation and the sums in the region serve targeted, selanjynya on the outside of the line of demarcation coastal vegetation conditions over rindang.Gambar right treatment plan to eliminate odors from coast to settlements, by greening the area around the beach

According to White RF (in Concept in Thermal Comfort, Egan, 1975) A group of trees can also be used as a 'windbreak' for the area that the wind speed is big enough. Trees as 'windbreak' can reduce wind speeds of more than 35% if the distance from the building at 5 x height of the tree. Buildings should be designed where the wind speed in pedestrian areas and openings of less than 10 mph (miles per hour).

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Besides vegetation, also needed a system of good environmental sanitation because according Jenie, 1988 referenced in Rusmali 2004, that sanitation can also help maintain the biological environment that reduced pollution and help to preserve the ecological balance relations. General hygiene according to Johns (1991), is the basis of a process hygiene. Cleanliness is important because it can prevent the bacteria that arise from dirty conditions. Things that need to be done to eliminate environmental pollution related to sanitation are:

- Creating connectivity between TPI sewer drains and so to roil surrounding villages.
- Provision of source of clean water in TPI, example deep wells or from PDAM (regional water company)
- Hold storage tanks and storage bins clean ait
- Clean the drainage that have been there from the trash
- Improve environment drainage construction system (walls of the channel, depth and width)
- Creating an open drainage channels for easy cleaning of dirt clogging
- Do greening around the TPI and the surrounding residential area, especially with the kind of leafy trees shade to soften the strong winds from the west to the settlements and to shade function.
- Giving boundary area between TPI with surrounding residential areas to facilitate the planning of the TPI landscape

4. Conclusions

The beba TPI has a very bad sanitary system and not in accordance with peryaratan set by the minister of marine and fisheries sanitation fish pelengan place, it causes environmental pollution and health impacts. It needs to be

corrected by some measures related to improvement of sanitation systems so that the TPI and the surrounding environment can be more conducive.

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